SOFTLINES WASTEWATER TESTING

TEST REPORT

Number:TURA240088305

Date of sampling	24/07/2024
Reporting Date	31/07/2024

Audit ID	176892	Audit firm	INTERTEK EGYPT
Company name	GIZA SPINNING & WEAVING CO.		
Contact person	MR.MOHAMED ELHİNDİ		
Type of tax - tax ID no	100066577		
Address	KAFR HAKEEM, KARDASA		
Region state province	GIZA		
Town city / village	GIZA		
Zip/Post code	12875		
Country	EGYPT		

Type of wastewater discharge				
Type of wastewater discharge:	Indirect discharge			
On-site effluent treatment plant (ETP):	YES			
Pre - treatment:	YES			
	Preliminary	Primary	Secondary/Biological	Tertiary
	☑ Screening/ Sieving/Grit Remover ☑ Homogenization tank ☑ pH correction ☐ Other ☐ None	☑ Coagulation/Flocculation ☐ Dissolved air flotation (DAF) ☑ Sedimentation tanks or Settler/Clarifier ☐ Other	☐ Activated sludge process Aerobic reactor ☐ Biological Biofilm reactor (MBBR, SAF, RBC...). ☐ BSequencing batch reactor (SBR) ☐ Other	☐ Absorption with activated carbon ☐ High rate filtration ☐ Advanced oxidation techniques (Ozone, Fenton reaction, photo catalytic degradation...) ☐ Other
Description of discharge:	Facility discharge its effluent to sewer then goes to Abo rawash CETP			
[If direct discharge] ambient temperature of receiving water body (ºC):	N/A			
Average total industrial wastewater generated (m3/day):	1200 m3/day			

Sludge Disposal Pathway	B	

Sampler accreditation certification number (ZDHC):		C74D106817902	
Sample description	**Simple**	**Composite**	**Comments**
(1) Untreated wastewater (BT)	[Blue, grab sample at 12:00] [Sampling location: Latitude 30.078677, Longitude 31.1059110]	X	X
(2) Treated wastewater (AT)	[Clear, grab sample at 12:00] [Sampling location: Latitude 30.07933, Longitude 31.105772]	X	X
(3) Sludge	[Dark brown, grab sample at 12:00] [Sampling location: Latitude 30.078596, Longitude 31.105521]	X	[pH; 12.7]

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Local Legal Data	
Local Legal Standard name [a]	N/A
Local legal standard no. [a]:	N/A
Parameters (ZDHC WWSG V2.1, Table 2-3) exceeded local regulation:	N/A
Discharge permit provided:	YES

Internal description – Intertek Lab Issuing Final Test Report	
Sampling laboratory	INTERTEK EGYPT
Testing laboratory	INTERTEK TURKEY
Date received sample	29/07/2024
Date and time of the beginning of sampling	24/07/2024, 12:00
Date and time of the end of sampling	24/07/2024, 12:00
Testing period	29/07/2024 to 31/07/2024
Reporting date	31/07/2024
Arrival Temperature at Lab	25.2ºC (TT)
Internal codification number	N/A
Reference sample number	TURA240088305
Comments	Samples received within 5 days.

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Summary of test results		
Wastewater/ MRSL - Test items	**Testing period**	**Sample 1 (untreated)**
Alkylphenols (APs) & Alkylphenol ethoxylates (APEOs)	From 29/07/2024 to 31/07/2024	**ND**
Anti - Microbials & Biocides	From 29/07/2024 to 31/07/2024	**ND**
Chlorinated parafins	From 29/07/2024 to 31/07/2024	**ND**
Chlorobenzenes and Chlorotoluenes	From 29/07/2024 to 31/07/2024	**ND**
Chlorophenols	From 29/07/2024 to 31/07/2024	**ND**
Dimethyl Formamide (DMFa) (*)	From 29/07/2024 to 31/07/2024	**ND**
Dyes – Carcinogenic or Equivalent Concern	From 29/07/2024 to 31/07/2024	**ND**
Dyes – Disperse (Allergenic)	From 29/07/2024 to 31/07/2024	**ND**
Dyes-Navy Blue Colourant	From 29/07/2024 to 31/07/2024	**ND**
Flame retardants	From 29/07/2024 to 31/07/2024	**ND**
Glycols	From 29/07/2024 to 31/07/2024	**ND**
Halogenated solvents	From 29/07/2024 to 31/07/2024	**ND**
Organotin compounds	From 29/07/2024 to 31/07/2024	**ND**
Other/Miscellaneous Chemicals (^)	From 29/07/2024 to 31/07/2024	**ND**
Perfluorinated chemicals (PFCs)	From 29/07/2024 to 31/07/2024	**ND**
Phthalates	From 29/07/2024 to 31/07/2024	**ND**
Polycyclic aromatic hydrocarbons (PAHs)	From 29/07/2024 to 31/07/2024	**ND**
Restricted Aromatic Amines (Cleavable from Azo- colourants) Azo dyes	From 29/07/2024 to 31/07/2024	**ND**
UV Absorbers	From 29/07/2024 to 31/07/2024	**ND**
Volatile organic compounds (VOCs)	From 29/07/2024 to 31/07/2024	**ND**

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Wastewater / Heavy metals - Test items	Testing period	Sample 2 (After treatment)		
		Foundational	Progressive	Aspirational
Antimony	N/A			N/A
Chromium (VI)	From 29/07/2024 to 31/07/2024			Meet
Barium	N/A	N/A		
Selenium	N/A	N/A		
Tin	N/A	N/A		
Arsenic	From 29/07/2024 to 31/07/2024			Meet
Chromium (total)	N/A			N/A
Cobalt	N/A			N/A
Cadmium	From 29/07/2024 to 31/07/2024			Meet
Copper	N/A			N/A
Lead	From 29/07/2024 to 31/07/2024			Meet
Nickel	N/A			N/A
Silver	N/A			N/A
Zinc	N/A			N/A
Mercury	From 29/07/2024 to 31/07/2024			Meet

Wastewater / Conventional parameters - Test items	Testing period	Sample 2 (effluent)		
		Foundational	Progressive	Aspirational
pH[f]	N/A	N/A		
Temperature difference[f]	N/A			N/A
E.coli	N/A	N/A		
Colour	N/A			N/A
Persistent foam[f]	N/A	N/A		
Wastewater flowrate[f]	N/A	N/A		
Ammonium-Nitrogen	N/A			N/A
AOX	N/A			N/A
Biochemical Oxygen Demand (BOD_5)	N/A			N/A
Chemical Oxygen Demand (COD)	N/A			N/A
Dissolved Oxygen (DO) [f]	N/A	N/A		
Oil & Grease	N/A			N/A
Total Phenols / Phenol Index	N/A			N/A
Total Chlorine [f]	N/A	N/A		
Total Dissolved Solids (TDS)	N/A	N/A		
Total Nitrogen	N/A			N/A

Total Phosphorus	N/A			N/A
Total Suspended Solids (TSS)	N/A			N/A

Wastewater / Anions - Test items	Testing period	Sample 2 (effluent)		
		Foundational	Progressive	Aspirational
Chloride	N/A	N/A		
Cyanide, total	N/A			N/A
Sulfate	N/A	N/A		
Sulfide	N/A			N/A
Sulfite	N/A			N/A

Sludge / Heavy metals - Test items	Testing period	Sample 3: Sludge (Total)	Sample 3: Sludge (Leachate)
Antimony	From 29/07/2024 to 31/07/2024	Meet	
Arsenic	From 29/07/2024 to 31/07/2024	Meet	
Barium	From 29/07/2024 to 31/07/2024	Meet	
Cadmium	From 29/07/2024 to 31/07/2024	Meet	
Cobalt	From 29/07/2024 to 31/07/2024	Meet	
Copper	From 29/07/2024 to 31/07/2024	Meet	
Lead	From 29/07/2024 to 31/07/2024	Meet	
Nickel	From 29/07/2024 to 31/07/2024	Meet	
Selenium	From 29/07/2024 to 31/07/2024	Meet	
Silver	From 29/07/2024 to 31/07/2024	Meet	
Chromium (total)	From 29/07/2024 to 31/07/2024	Meet	
Zinc	From 29/07/2024 to 31/07/2024	Meet	
Chromium VI	From 29/07/2024 to 31/07/2024	Meet	
Mercury	From 29/07/2024 to 31/07/2024	Meet	

Sludge / Anion - Test items	Testing period	Sample 3: Sludge
Cyanide	From 29/07/2024 to 29/07/2024	ND

Sludge / Conventional parameters - Test items	Testing period	Sample 3: Sludge
pH	From 29/07/2024 to 29/07/2024	Meet
% Solids	From 29/07/2024 to 29/07/2024	96.5
Paint filter test	From 29/07/2024 to 29/07/2024	Pass
Faecal coliform	From 29/07/2024 to 31/07/2024	@ ND

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Sludge / MRSL - Test items	Testing period	Sample 3: Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	From 29/07/2024 to 31/07/2024	ND
Polycyclic Aromatic Hydrocarbons (PAHs)	From 29/07/2024 to 31/07/2024	ND
Chlorotoluenes	From 29/07/2024 to 31/07/2024	ND

Remark (Indicated in each parameter)

ND = Not detected (less than lab reporting limit)
D = Detected
N/A = Not applicable (Out of scope according to ZDHC WWSG v2.1)
NT = Not tested (Did not test according to applicant's request)
(S) = The samples were subcontracted to Intertek [Intertek Turkey Food Laboratory] for testing.
(T) = If sample temperature is greater than 8°C and less than 10°C when received from the laboratory.
(TT) = If sample temperature is exceeded 10°C when received from the laboratory.
@ = Maximum holding time exceeded.
(*) = Sample and report for mock leather.
(^) = Borate, zinc salt would report ND when total boron or total zinc less than 100 µg/L.
[f] = On-site test by sampler.
[a] = The local legal standard name and legal standard no. is referenced to discharge permit (or contractual agree by CETP) that provided by applicant.

This report shown the test result of the environment samples of above factory which collected on specific date and time. The results of this report shall not be used for any regulatory compliance purposes.

For and on behalf of
Intertek Testing Service Turkey Limited

Prepared and Checked By :

Eralp Anıl
Environmental Engineer
For Intertek Testing Services Turkey

Authorized By :

Kerem Can
Consumer Products Operational Excellence Director
For Intertek Testing Services Turkey

Intertek Test Hizmetleri A.S.
Merkez Mahallesi Sanayi Cad. No.23 Altindag Plaza Yenibosna 34197 - ISTANBUL / TURKEY

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Number:TURA240088305

Test results

1. Conventional parameters

Wastewater/ Conventional parameters - Test items	Test method	Limit			Lab Reporting Limit	Result	Unit
		Foundational	Progressive	Aspirational		Sample 2 (After treatment)	
Temperature	SM 2550 B	35°C	30°C	25°C	N/A	N/A	°C
Temperature difference [ºC]	SM 2550 B	Δ+15ºC	Δ+10ºC	Δ+5ºC	N/A	N/A	[f] ºC
TSS	SM 2540 D	50 mg/L	15 mg/L	5 mg/L	5 mg/L	N/A	mg/L
Chemical Oxygen Demand (COD)	SM 5220 D	150 mg/L	80 mg/L	40 mg/L	40 mg/L	N/A	mg/L
Total-N	IS 3025 (Sum of SM4500-Norg B, SM4500-NO2- B, SM4500-NO3- E)	20 mg/L	10 mg/L	5 mg/L	5 mg/L	N/A	mg/L
pH	SM 4500-H+	6-9			N/A	N/A	[f] pH
Colour (436 nm ; 525 nm ; 620nm)	ISO 7887-B	7;5;3	5;3;2	2;1;1	N/A	N/A	[m-1]
Biochemical Oxygen Demand (BOD5)	SM 5210-B	30 mg/L	15 mg/L	8 mg/L	5 mg/L	N/A	mg/L
Ammonium-Nitrogen	SM 4500 NH3 B& F	10 mg/L	1 mg/L	0.5 mg/L	0.5 mg/L	N/A	mg/L
Total-P	EPA3015 A& ISO11885	3 mg/L	0.5 mg/L	0.1 mg/L	0.1 mg/L	N/A	mg/L
AOX	ISO 9562	3 mg/L	0.5 mg/L	0.1 mg/L	0.1 mg/L	N/A	mg/L
Oil and grease	USEPA 1664	10 mg/L	2 mg/L	0.5 mg/L	0.5 mg/L	N/A	mg/L
Phenol	SM 5530-B& C	0.5 mg/L	0.01 mg/L	0.001 mg/L	0.001 mg/L	N/A	mg/L
E. Coli	ISO 9308-1	126 [MPN/100-ml]			126 [MPN/100-ml]	N/A	[MPN/100-ml]
Foam	N/A	Not visible	Not visible	Not visible	N/A	N/A	[f]

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Cyanide	SM 4500-CN-C&E	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	mg/L
Sulfide	SM 4500-S2-D	0.5 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	mg/L
Sulphite	SM 4500 SO32 C	2 mg/L	0.5 mg/L	0.2 mg/L	0.2 mg/L	N/A	mg/L
Dissolved Oxygen (DO)	SM 4500-O-G	Sample and report only			N/A	N/A	[f] mg/L
Total Chlorine	ISO 7393-2	Sample and report only			0.2 mg/L	N/A	[f] mg/L
Total Dissolved Solids (TDS)	SM 2540-C	Sample and report only			10 mg/L	N/A	mg/L
Chloride	SM 4500-Cl C	Sample and report only			10 mg/L	N/A	mg/L
Sulfate	SM 4500 SO4 E	Sample and report only			10 mg/L	N/A	mg/L
Wastewater Flowrate	N/A	Report only			N/A	N/A	[f] m3/day

△ is the degree above ambient temperature of receiving water body.

2. Heavy metals

Others; Modified from EPA 3015A, EPA 6020B (ICP-MS analysis)
Chromium (VI); ISO 18412 (UV/VIS analysis)

Heavy metals	CAS no.	Limit			Lab Reporting limit (mg/L)	Result	Unit
		Foundational	Progressive	Aspirational		Sample 2 (After treatment)	
Arsenic (As)	Various	0.05 mg/L	0.01 mg/L	0.005 mg/L	0.005 mg/L	ND	mg/L
Cadmium (Cd)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	ND	mg/L
Mercury (Hg)	Various	0.01 mg/L	0.005 mg/L	0.001 mg/L	0.001 mg/L	ND	mg/L
Lead (Pb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	ND	mg/L
Antimony (Sb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	mg/L
Cobalt (Co)	Various	0.05 mg/L	0.02 mg/L	0.01 mg/L	0.01 mg/L	N/A	mg/L
Nickel (Ni)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	mg/L
Silver (Ag)	Various	0.1 mg/L	0.05 mg/L	0.005 mg/L	0.005 mg/L	N/A	mg/L
Copper (Cu)	Various	1 mg/L	0.5 mg/L	0.25 mg/L	0.25 mg/L	N/A	mg/L
Zinc (Zn)	Various	5.0 mg/L	1.0 mg/L	0.5 mg/L	0.5 mg/L	N/A	mg/L
Total Chromium (Cr)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	mg/L
Chromium VI (Cr VI)	Various	0.05 mg/L	0.005 mg/L	0.001 mg/L	0.001 mg/L	ND	mg/L
Barium	Various	Sample and Report only			0.001 mg/L	N/A	mg/L
Selenium	Various	Sample and Report only			0.001 mg/L	N/A	mg/L
Tin	Various	Sample and Report only			0.001 mg/L	N/A	mg/L

3.Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers.
APs&APEOs (n=1,2): modified from ISO 18857-1, ISO 18857-2, ASTM D7065) (GC-MS analysis)
APs&APEOs (n>2): modified from ISO 18254-1) (LC-MS-MS analysis)

Alkylphenols (APs) & Alkylphenolethoxylates (APEOs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Octylphenol (OP), mixed isomers	140-66-9/ 1806-26-4/ 27193-28-8	5	5	ND	µg/L
Nonylphenol (NP), mixed isomers	104-40-5/ 11066-49-2/ 25154-52-3/84852-15-3	5	5	ND	µg/L
Octylphenolethoxylates (OPEOs)	9002-93-1; 9036-19-5; 68987-90-6	5	5	ND	µg/L
Nonylphenolethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205-87-1/68412-54-4/127087-87-0	5	5	ND	µg/L

4. Chlorobenzenes & Chlorotoluenes
Modified from EPA 3510C, EPA 8260D, EPA 8270E (GC-MS analysis)

Chlorobenzenes & Chlorotoluenes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Chlorobenzene	108-90-7	0.2	0.2	ND	µg/L
1,2-Dichlorobenzene	95-50-1	0.2	0.2	ND	µg/L
1,3-Dichlorobenzene	541-73-1	0.2	0.2	ND	µg/L
1,4-Dichlorobezene	106-46-7	0.2	0.2	ND	µg/L
1,2,3-Trichlorobenzene	87-61-6	0.2	0.2	ND	µg/L
1,2,4-Trichlorobenzene	120-82-1	0.2	0.2	ND	µg/L
1,3,5-Trichlorobenzene	108-70-3	0.2	0.2	ND	µg/L
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	0.2	ND	µg/L
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	0.2	ND	µg/L
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	0.2	ND	µg/L
Pentachlorobenzene	608-93-5	0.2	0.2	ND	µg/L
Hexachlorobenzene	118-74-1	0.2	0.2	ND	µg/L
2-Chlorotoluene	95-49-8	0.2	0.2	ND	µg/L
3-Chlorotoluene	108-41-8	0.2	0.2	ND	µg/L
4-Chlorotoluene	106-43-4	0.2	0.2	ND	µg/L
2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	µg/L

2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	µg/L
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	µg/L
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	µg/L
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	µg/L
3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	µg/L
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	µg/L
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	µg/L
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	µg/L
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	µg/L
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	µg/L
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	µg/L
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	µg/L
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	µg/L
Pentachlorotoluene	877-11-2	0.2	0.2	ND	µg/L

5. Chlorophenols
Modified from EPA 3510C, EPA 8270E (GC-MS analysis)

Chlorophenols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
2-Chlorophenol	95-57-8	0.5	0.5	ND	µg/L
3-Chlorophenol	108-43-0	0.5	0.5	ND	µg/L
4-Chlorophenol	106-48-9	0.5	0.5	ND	µg/L
2,3-Dichlorophenol	576-24-9	0.5	0.5	ND	µg/L
2,4-Dichlorophenol	120-83-2	0.5	0.5	ND	µg/L
2,5-Dichlorophenol	583-78-8	0.5	0.5	ND	µg/L
2,6-Dichlorophenol	87-65-0	0.5	0.5	ND	µg/L
3,4-Dichlorophenol	95-77-2	0.5	0.5	ND	µg/L

3,5-Dichlorophenol	591-35-5	0.5	0.5	ND	µg/L
2,3,4-Trichlorophenol	15950-66-0	0.5	0.5	ND	µg/L
2,3,5-Trichlorophenol	933-78-8	0.5	0.5	ND	µg/L
2,3,6-Trichlorophenol	933-75-5	0.5	0.5	ND	µg/L
2,4,5-Trichlorophenol	95-95-4	0.5	0.5	ND	µg/L
2,4,6-Trichlorophenol	88-06-2	0.5	0.5	ND	µg/L
3,4,5-Trichlorophenol	609-19-8	0.5	0.5	ND	µg/L
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	0.5	ND	µg/L
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	0.5	ND	µg/L
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	0.5	ND	µg/L
Pentachlorophenol (PCP)	87-86-5	0.5	0.5	ND	µg/L

6. Restricted Aromatic Amines (Cleavable from Azo- colourants)
Modified from EPA 3510C, ISO 14362-1 (GC-MS analysis)

Azo Dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	0.1	ND	µg/L
4,4'-Diaminodiphenylmethane	101-77-9	0.1	0.1	ND	µg/L
4,4'-Oxydianiline	101-80-4	0.1	0.1	ND	µg/L
4-Chloroaniline	106-47-8	0.1	0.1	ND	µg/L
3,3'-Dimethoxybenzidine	119-90-4	0.1	0.1	ND	µg/L
3,3'-Dimethylbenzidine	119-93-7	0.1	0.1	ND	µg/L
p-Cresidine	120-71-8	0.1	0.1	ND	µg/L
2,4,5-Trimethylaniline	137-17-7	0.1	0.1	ND	µg/L
4,4'-Thiodianiline	139-65-1	0.1	0.1	ND	µg/L
4-Aminoazobenzene	60-09-3	0.1	0.1	ND	µg/L
4-methoxy-m-phenylenediamine	615-05-4	0.1	0.1	ND	µg/L
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.1	0.1	ND	µg/L
2,6-Xylidine	87-62-7	0.1	0.1	ND	µg/L
o-Anisidine	90-04-0	0.1	0.1	ND	µg/L
2-Naphthylamine	91-59-8	0.1	0.1	ND	µg/L
3,3'-Dichlorobenzidine	91-94-1	0.1	0.1	ND	µg/L
4-Aminobiphenyl	92-67-1	0.1	0.1	ND	µg/L
Benzidine	92-87-5	0.1	0.1	ND	µg/L
o-Toluidine	95-53-4	0.1	0.1	ND	µg/L
2,4-Xylidine	95-68-1	0.1	0.1	ND	µg/L
4-Chloro-o-toluidine	95-69-2	0.1	0.1	ND	µg/L
4-Methyl-m-phenylenediamine	95-80-7	0.1	0.1	ND	µg/L

o-Aminoazotoluene	97-56-3	0.1	0.1	ND	µg/L
5-Nitro-o-toluidine	99-55-8	0.1	0.1	ND	µg/L
2-Naphthylammoniumacetate	553-00-4	0.1	0.1	ND	µg/L
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	0.1	ND	µg/L
4-chloro-o-toluidinium chloride	3165-93-3	0.1	0.1	ND	µg/L
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	0.1	ND	µg/L

7. Dyes – Carcinogenic or Equivalent Concern

Modified from DIN 54231 (LC-MS analysis)

Carcinogenic dyes	**CAS no.**	**Lab Reporting limit (µg/L)**	**ZDHC Reporting limit (µg/L)**	**Result Sample 1 (Untreated wastewater)**	**Unit**
C.I. Direct Black 38	1937-37-7	500	500	ND	µg/L
C.I. Direct Blue 6	2602-46-2	500	500	ND	µg/L
C.I. Acid Red 26	3761-53-3	500	500	ND	µg/L
C.I. Basic Red 9	569-61-9	500	500	ND	µg/L
C.I. Direct Red 28	573-58-0	500	500	ND	µg/L
C.I. Basic Violet 14	632-99-5	500	500	ND	µg/L
C.I. Disperse Blue 1	2475-45-8	500	500	ND	µg/L
C.I. Disperse Blue 3	2475-46-9	500	500	ND	µg/L
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green)	10309-95-2	500	500	ND	µg/L
Disperse Orange 11	82-28-0	500	500	ND	µg/L
Basic violet 3 with >0.1% of Michler´s Keto	548-62-9	500	500	ND	µg/L

C.I. Acid Violet 49	1694-09-3	500	500	ND	µg/L

8. Dyes – Disperse (Allergenic)
Modified from DIN 54231 (LC-MS analysis)

Disperse dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Disperse Yellow 1	119-15-3	50	50	ND	µg/L
Disperse Blue 102	12222-97-8	50	50	ND	µg/L
Disperse Blue 106	12223-01-7	50	50	ND	µg/L
Disperse Yellow 39	12236-29-2	50	50	ND	µg/L
Disperse Orange 37/59/76	13301-61-6	50	50	ND	µg/L
Disperse Brown 1	23355-64-8	50	50	ND	µg/L
Disperse Orange 1	2581-69-3	50	50	ND	µg/L
Disperse Yellow 3	2832-40-8	50	50	ND	µg/L
Disperse Red 11	2872-48-2	50	50	ND	µg/L
Disperse Red 1	2872-52-8	50	50	ND	µg/L
Disperse Red 17	3179-89-3	50	50	ND	µg/L
Disperse Blue 7	3179-90-6	50	50	ND	µg/L
Disperse Blue 26	3860-63-7	50	50	ND	µg/L
Disperse Yellow 49	54824-37-2	50	50	ND	µg/L
Disperse Blue 35	12222-75-2	50	50	ND	µg/L
Disperse Blue 124	61951-51-7	50	50	ND	µg/L
Disperse Yellow 9	6373-73-5	50	50	ND	µg/L
Disperse Orange 3	730-40-5	50	50	ND	µg/L
Disperse Blue 35	56524-77-7	50	50	ND	µg/L

9. Flame retardants

Brominated substances: Modified from EPA 3510C, EPA 527, ISO 22032 (GC-MS and ICP-MS analysis)
Brominated/Phosphorus substances: Modified from EPA 3510C, EPA 8321B (LC-MS-MS analysis)

Flame retardants	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	25	ND	µg/L
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	25	ND	µg/L
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	25	25	ND	µg/L
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	25	ND	µg/L
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	25	ND	µg/L
Bis(2,3-dibromopropyl) phosphate	5412-25-9	25	25	ND	µg/L
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	25	25	ND	µg/L
Polybromobiphenyls (PBBs)	59536-65-1	25	25	ND	µg/L
Tetrabromobisphenol A (TBBPA)	79-94-7	25	25	ND	µg/L
Hexabromocyclododecane (HBCDD)	3194-55-6	25	25	ND	µg/L
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	25	25	ND	µg/L
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	25	ND	µg/L
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	25	ND	µg/L
Decabromobiphenyl (DecaBB)	13654-09-6	25	25	ND	µg/L
Dibromobiphenyls (DiBB)	Various	25	25	ND	µg/L
Octabromobiphenyls (OctaBB)	Various	25	25	ND	µg/L
Dibromopropylether	21850-44-2	25	25	ND	µg/L
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	25	ND	µg/L
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	25	ND	µg/L

Monobromobiphenyls (MonoBB)	Various	25	25	ND	µg/L
Monobromodiphenylethers (MonoBDEs)	Various	25	25	ND	µg/L
Nonabromobiphenyls (NonaBB)	Various	25	25	ND	µg/L
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	25	ND	µg/L
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	25	ND	µg/L
Tribromodiphenylethers (TriBDEs)	Various	25	25	ND	µg/L
Boric acid**	10043-35-3 / 11113-50-1	100 in Boron	100 in Boron	ND	µg/L
Diboron trioxide**	1303-86-2	100 in Boron	100 in Boron	ND	µg/L
Disodium octaborate**	12008-41-2	100 in Boron	100 in Boron	ND	µg/L
Disodium tetraborate anhydrous**	1303-96-4 / 1330-43-4	100 in Boron	100 in Boron	ND	µg/L
Tetraboron disodium heptaoxide, hydrate**	12267-73-1	100 in Boron	100 in Boron	ND	µg/L

** Report total boron directly, no conversion from Boron salt.

10. Glycols
Modified from EPA 3510C (GC-MS analysis)

Glycols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Bis(2-methoxyethyl)-ether	111-96-6	50	50	ND	µg/L
2-ethoxyethanol	110-80-5	50	50	ND	µg/L
2-ethoxyethyl acetate	111-15-9	50	50	ND	µg/L
Ethylene glycol dimethyl ether	110-71-4	50	50	ND	µg/L
2-methoxyethanol	109-86-4	50	50	ND	µg/L
2-methoxyethylacetate	110-49-6	50	50	ND	µg/L
2-methoxypropylacetate	70657-70-4	50	50	ND	µg/L
Triethylene glycol dimethyl ether	112-49-2	50	50	ND	µg/L

11.Halogenated solvents
Modified from EPA 8260D, EPA 5021A (GC-MS analysis)

Chlorinated solvents	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
1,2-Dichloroethane	107-06-2	1	1	ND	µg/L
Methylene chloride	75-09-2	1	1	ND	µg/L
Trichloroethene	79-01-6	1	1	ND	µg/L
Tetrachloroethene	127-18-4	1	1	ND	µg/L

12. Organotin compounds
Modified from EPA 3510C, ISO 17353 (GC-MS analysis)

Organotin compounds	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Mono-, di-and tri-methyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-butyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-phenyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-octyltin derivatives	Various	0.01	0.01	ND	µg/L
Triclyclohexyltin (TCyHT)	Various	0.01	0.01	ND	µg/L
Dipropyltin compounds (DPT)	Various	0.01	0.01	ND	µg/L
Tetrabutyltin compounds (TeBT)	Various	0.01	0.01	ND	µg/L
Tripropyltin Compounds (TPT)	Various	0.01	0.01	ND	µg/L

Tetraoctyltin compounds (TeOT)	Various	0.01	0.01	ND	µg/L
Tetraethyltin Compounds (TeET)	Various	0.01	0.01	ND	µg/L

13. Phthalates

Modified from EPA 3510C, EPA 8270E, ISO 18856, ISO 14389 (GC-MS analysis)

Phthalates	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	10	ND	µg/L
Dimethoxyethyl phthalate (DMEP)	117-82-8	10	10	ND	µg/L
Di-n-octyl phthalate (DNOP)	117-84-0	10	10	ND	µg/L
Di-iso-decyl phthalate (DIDP)	26761-40-0/68515-49-1	10	10	ND	µg/L
Di-iso-nonyl phthalate (DINP)	28553-12-0/68515-48-0	10	10	ND	µg/L
Di-n-hexyl phthalate (DnHP)	84-75-3	10	10	ND	µg/L
Dibutyl phthalate (DBP)	84-74-2	10	10	ND	µg/L
Butyl benzyl phthalate (BBP)	85-68-7	10	10	ND	µg/L
Diethyl phthalate (DEP)	84-66-2	10	10	ND	µg/L
Di-n-propyl phthalate (DPRP)	131-16-8	10	10	ND	µg/L
Di-iso-butyl phthalate (DIBP)	84-69-5	10	10	ND	µg/L
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	10	ND	µg/L
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearakyl esters (DHNUP)	68515-42-4	10	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C6-11-branched alkyl esters, C7-rich (DIHP)	71888-89-6	10	10	ND	µg/L
Di-n-pentylphthalates	131-18-0	10	10	ND	µg/L
Diisopentylphthalates	605-50-5	10	10	ND	µg/L
Dinonyl phthalate (DNP)	84-76-4	10	10	ND	µg/L

14. Perfluorinated chemicals (PFCs)

PFCs: Modified from DIN 38407-42, CEN/TS 15968 (LC-MS-MS analysis)
FTOH: Modified from EPA 3510C, CEN/TS 15968, Journal of Chromatography A, 1178 (2008) 199-205 (GC-MS analysis)

Perfluorinated chemicals (PFCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Perfluoro-octanoic acid (PFOA)	335-67-1	0.01	0.01	ND	µg/L
Perfluoro-octane-sulfonic acid (L-PFOS)	1763-23-1	0.01	0.01	ND	µg/L
Perfluoro-octane-sulfon-amide (PFOSA)	754-91-6	0.01	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amide (N-Me-FOSA)	31506-32-8	0.01	0.01	ND	µg/L
N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA)	4151-50-2	0.01	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amido-ethanol (N-Me-FOSE alcohol)	24448-09-7	0.01	0.01	ND	µg/L
N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol (N-Et-FOSE alcohol)	1691-99-2	0.01	0.01	ND	µg/L
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	1	1	ND	µg/L
2-Perfluorooctylethanol (8:2 FTOH)	678-39-7	1	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	1	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	1	1	ND	µg/L
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	1	1	ND	µg/L
Ethyl perfluorooctanoate Et-PFOA	3108-24-5	1	1	ND	µg/L

15. Polycyclic aromatic hydrocarbons (PAHs)

Modified from EPA 3510C, EPA 8270E, DIN 38407-39 (GC-MS analysis).

Polycyclic aromatic hydrocarbons (PAHs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Benzo(a)pyrene (BaP)	50-32-8	1	1	ND	µg/L
Anthracene	120-12-7	1	1	ND	µg/L
Pyrene	129-00-0	1	1	ND	µg/L
Benzo(ghi)perylene	191-24-2	1	1	ND	µg/L
Benzo(e)pyrene	192-97-2	1	1	ND	µg/L
Indeno (1,2,3-cd)pyrene	193-39-5	1	1	ND	µg/L
Benzo(j)fluoranthene	205-82-3	1	1	ND	µg/L
Benzo(b)fluoranthene	205-99-2	1	1	ND	µg/L
Fluoranthene	206-44-0	1	1	ND	µg/L
Benzo(k)fluoranthene	207-08-09	1	1	ND	µg/L
Acenaphthylene	208-96-8	1	1	ND	µg/L

Chrysene	218-01-9	1	1	ND	µg/L
Dibenz(a,h)anthracene	53-70-3	1	1	ND	µg/L
Benzo(a)anthracene	56-55-3	1	1	ND	µg/L
Acenaphthene	83-32-9	1	1	ND	µg/L
Phenanthrene	85-01-8	1	1	ND	µg/L
Fluorene	86-73-7	1	1	ND	µg/L
Naphthalene	91-20-3	1	1	ND	µg/L

16. Volatile organic compounds (VOCs)
odified from EPA 8260D, EPA 5021A (GC-MS analysis)

Volatile organic compounds (VOCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Benzene	71-43-2	1	1	ND	µg/L
Xylene	1330-20-7	1	1	ND	µg/L
o-cresol	95-48-7	1	1	ND	µg/L
p-cresol	106-44-5	1	1	ND	µg/L
m-cresol	108-39-4	1	1	ND	µg/L
Toluene*	108-88-3	1	1	ND	µg/L

(*) = Sample and report for mock leather.

17. Anti - Microbials & Biocides
Modified from EPA 3510C, EPA 8270E (GC-MS analysis)

Anti - Microbials & Biocides	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
o-Phenylphenol (+salts)	90-43-7	100	100	ND	µg/L
Triclosan	3380-34-5	100	100	ND	µg/L
Permethrin	Multiple	500	500	ND	µg/L

18. Chlorinated paraffins
Modified from EPA 3510C, ISO 1201 (GC-ECNI-MS analysis)

Chlorinated paraffins	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	25	25	ND	µg/L
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	500	500	ND	µg/L

19. Dimethyl Formamide (DMFa) (*)
Modified from DIN 54439 (GC-MS analysis)

N,N-di-methylformamide (DMFa)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Dimethyl formamide; N,N-dimethylformamide	68-12-2	1000	1000	ND	µg/L

(*) = Sample and report for mock leather.

20. Dyes-Navy Blue Colourant
Modified from DIN 54231 (LC-MS analysis)

Dyes-Navy Blue Colourant	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	500	500	ND	µg/L
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	500	ND	µg/L

21. Other/Miscellaneous Chemicals (^)
Others: Micro filtration method (LC-MS-MS analysis)
AEAA: Liquid-liquid extraction (LC-MS-MS analysis)
Quinoline: Modified from DIN 54231 (LC-MS-MS analysis)
Borate salt: Modified from EPA 3015A ve EPA 6020B (ICP-MS analysis)

Other/Miscellaneous Chemicals	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	500	500	ND	µg/L
Bisphenol A	80-05-7	10	10	ND	µg/L
Thiourea	62-56-6	50	50	ND	µg/L
Quinoline	91-22-5	50	50	ND	µg/L
Borate, zinc salt (^^)	12767-90-7	100 in Boron & 100 in Zinc	100 in Boron & 100 in Zinc	Boron:ND Zinc: ND	µg/L

^^ = Report total boron & total zinc individually, and no conversion from boron / zinc salt.

22. UV Absorbers
Liquid-Liquid extraction (GC-MS analysis)

UV Absorbers	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec- butyl) phenol(UV-350)	36437-37-3	100	100	ND	µg/L
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	100	100	ND	µg/L
2-benzotriazol-2-yl-4,6-di-tertbutylphenol	3846-71-7	100	100	ND	µg/L
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	100	ND	µg/L

23. Sludge Parameters – Step 1 - Metals

Others: Modified from EPA 3051A, ISO 17294-2, EPA 6020B (ICP-MS analysis)
Chromium VI: Modified from ISO 18412, TS EN ISO 18412 (UV/VIS analysis)

Sludge Parameters – Step 1 - Metals	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
Antimony	5	5	ND	mg/kg
Arsenic	5	5	ND	mg/kg
Barium	200	200	ND	mg/kg
Cadmium	1	1	ND	mg/kg
Cobalt	400	400	ND	mg/kg
Copper	50	50	ND	mg/kg
Lead	5	5	ND	mg/kg
Nickel	20	20	ND	mg/kg
Selenium	5	5	ND	mg/kg
Silver	50	50	ND	mg/kg
Total Chromium	50	50	ND	mg/kg
Zinc	400	400	ND	mg/kg
Chromium (VI)	20	20	ND	mg/kg
Mercury	1	1	ND	mg/kg

24. Sludge Parameters – Step 1 - Anions
USEPA 9013 A, USEPA 9014 (UV/VIS analysis)

Sludge Parameters – Step 1 - Anions	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
Cyanide	20	20	ND	mg/kg

25. Sludge Parameteres - Step 1 – Conventional

Sludge Parameters – Step 1 - Convention	Test method	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
pH	USEPA SW 9045D	N/A	12.7	N/A
% Solids	USEPA 160.3	N/A	96.5	%
Paint Filter Test	USEPA 9095B	N/A	Pass	N/A
Fecal Coliform	ISO 7899-2	10 MPN/g	@ ND	MPN/g

^ - Report “Pass” when Paint Filter Test does not contain free liquid; Report “Fail” when Paint Filter Test does contain free liquid.

26. Sludge Parameteres - Step 1 - MRSL - Alkylphenol (AP)and Alkylphenol Ethoxylates (APEOs): including all isomers.
APs/APEOs (n=1,2): Modified from EPA 3540C, ISO 18857-2 (GC-MS analysis)
APs/APEOs (n>2): Modified from EPA 3550C, ISO 18254-1 (LC-MS-MS analysis)

Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
Nonylphenol ethoxylates (NPEO)	9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0	0.4	0.4	ND	mg/kg
Nonylphenol (NP), mixed isomers	104-40-5; 11066-49-2; 25154-52-3; 84852-15-3	0.4	0.4	ND	mg/kg
Octylphenol ethoxylates (OPEO)	9002-93-1; 9036-19-5; 68987-90-6	0.4	0.4	ND	mg/kg
Octylphenol (OP), mixed isomers	140-66-9; 1806-26-4; 27193-28-8	0.4	0.4	ND	mg/kg

27. Sludge Parameteres - Step 1 - MRSL - PolycyclicAromatic Hydrocarbons (PAHs)
Modified from EPA 3540C, EPA 8270E, DIN 38407-39 (GC-MS analysis)

Sludge Parameteres - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons (PAHs)	CAS no.	Lab reporting limit (Dry weight) (mg/kg)	ZDHC reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
Acenaphthene	83-32-9	0.2	0.2	ND	mg/kg
Acenaphthylene	208-96-8	0.2	0.2	ND	mg/kg
Anthracene	120-12-7	0.2	0.2	ND	mg/kg
Benzo[a]anthracene	56-55-3	0.2	0.2	ND	mg/kg
Benzo[a]pyrene (BaP)	50-32-8	0.2	0.2	ND	mg/kg
Benzo[b]fluoranthene	205-99-2	0.2	0.2	ND	mg/kg
Benzo[e]pyrene	192-97-2	0.2	0.2	ND	mg/kg
Benzo[ghi]perylene	191-24-2	0.2	0.2	ND	mg/kg
Benzo[j]fluoranthene	205-82-3	0.2	0.2	ND	mg/kg
Benzo[k]fluoranthene	207-08-9	0.2	0.2	ND	mg/kg
Chrysene	218-01-9	0.2	0.2	ND	mg/kg
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	ND	mg/kg
Fluoranthene	206-44-0	0.2	0.2	ND	mg/kg
Fluorene	86-73-7	0.2	0.2	ND	mg/kg
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	0.2	ND	mg/kg
Naphthalene	91-20-3	0.2	0.2	ND	mg/kg
Phenanthrene	85-01-8	0.2	0.2	ND	mg/kg
Pyrene	129-00-0	0.2	0.2	ND	mg/kg

28. Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes

Modified from EPA 3510C, EPA 8260D, EPA 8270E (GC-MS analysis)

Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight))	Unit
2-Chlorotoluene	95-49-8	0.2	0.2	ND	mg/kg
3-Chlorotoluene	108-41-8	0.2	0.2	ND	mg/kg
4-Chlorotoluene	106-43-4	0.2	0.2	ND	mg/kg
2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	mg/kg
2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	mg/kg
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	mg/kg
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	mg/kg
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	mg/kg
3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	mg/kg
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	mg/kg
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	mg/kg
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	mg/kg
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	mg/kg
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	mg/kg
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	mg/kg
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	mg/kg
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	mg/kg
Pentachlorotoluene	877-11-2	0.2	0.2	ND	mg/kg

29. Sludge Parameteres - Step 2 – Metals
Others: EPA 1311, ISO 17294-2(ICP-MS analysis)
Chromium VI: EPA 1311, ISO 18412 (UV/VIS analysis)

Sludge Parameteres - Step 2 – Metals	Lab Reporting limit (mg/L)	Result Sample 3 (Sludge)	Unit
Antimony	0.12	N/A	mg/L
Arsenic	0.1	N/A	mg/L
Barium	7	N/A	mg/L
Cadmium	0.03	N/A	mg/L
Cobalt	16	N/A	mg/L
Copper	2	N/A	mg/L
Lead	0.1	N/A	mg/L
Nickel	0.7	N/A	mg/L
Selenium	0.1	N/A	mg/L
Silver	1	N/A	mg/L
Total Chromium	1	N/A	mg/L
Zinc	10	N/A	mg/L
Chromium (VI)	0.5	N/A	mg/L
Mercury	0.01	N/A	mg/L

Appendix 1: Reference to ZDHC WWSG v2.1 Table 4B

Parameters		Disposal pathways						
	Total metals and anions threshold values (mg/kg)	A and B (Leachate result in mg/L)	C (Leachate result in mg/L)	D (Leachate result in mg/L)	E (Leachate result in mg/L)	F (Leachate result in mg/L)	G (Leachate result in mg/L)	G (Total metals limit in mg/kg)
Arsenic	10	Report only if required to test	5	2.75	0.5	0.5	0.5	75
Cadmium	3		1	0.58	0.15	0.15	0.15	85
Total Chromium	100		15	10	5	5	5	3000
Lead	10		5	2.75	0.5	0.5	0.5	840
Antimony	12		15	7.8	0.6	0.6	0.6	Sample and report only
Barium	700		100	67.5	35	35	35	
Cobalt	1600		80	80	80	80	80	
Copper	200		25	17.5	10	10	10	4300
Nickel	70		20	11.75	3.5	3.5	3.5	420
Selenium	10		1	0.75	0.5	0.5	0.5	100
Silver	100		5	5	5	5	5	Sample and report only
Zinc	1000		250	150	50	50	50	7500
Chromium VI	50		5	3.75	2.5	2.5	2.5	50
Mercury	1		0.2	0.125	0.05	0.05	0.05	57

Appendix 2: reference to ZDHC WWSG v2.1 Table 4C

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
pH	Sample and report only	5 – 11 s.u.	5 – 11 s.u.	5 – 11 s.u.	6.5 – 9 s.u.	6.5 – 9 s.u.
% Solids		Sample and report only	Sample and report only	Sample and report only	Sample and report only	Sample and report only
Fecal Coliform					< 1000 (MPN/g)	
Paint Filter Test			Pass Paint filter test			Sample and report only
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers			< 0.4 mg/kg			
Polycyclic Aromatic Hydrocarbons (PAHs)			< 0.2 mg/kg			
Chlorotoluenes						

Appendix 2: reference to ZDHC WWSG v2.1 Table 4D

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
Cyanide	Report only if required to test	100 mg/kg	85 mg/kg	70 mg/kg	70 mg/kg	70 mg/kg

Photo of sampling points:	
X	
Photo of Incoming water -	**Photo of wastewater before treatment (untreated)** 24/07/2024, 12:00
	
Photo of effluent 24/07/2024, 12:00	**Photo of sludge** 24/07/2024, 12:00

Photo of samples:	
X	
Photo of Incoming water -	**Photo of untreated wastewater** 29/07/2024, 13:00
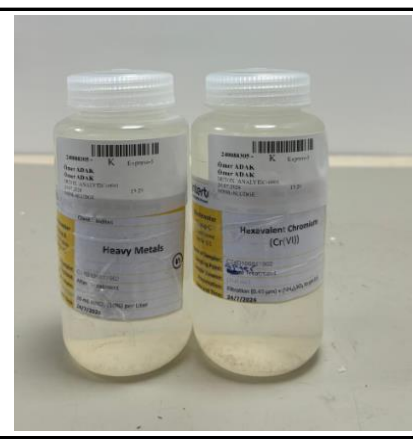	
Photo of effluent 29/07/2024, 13:00	**Photo of sludge** 29/07/2024, 13:00

SAMPLING PROTOCOL (PAGE 1 OF 3)

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Sampling Protocol for Wastewater and Sludge acc. ZDHC SAP 2.1 incl. Apdx. E

Facility Name	Giza Spinning and Weaving Co.
Address and Contact:	Kafr Hakim, Giza
Facility type : (tick all applicable)	☑ Dyeing and Finishing ☐ Fabric Mill ☑ Laundry, Washing and Finishing ☐ Natural Leather processing ☑ Printing ☐ Synthetic Leather processing
Date of sampling:	24/7/2024
Sample General ID (if applicable):	☐ direct discharge ☑ indirect discharge ☐ Zero Liquid Discharge (ZLD) ☐ MMCF ☐ with pre-treatment ☐ without treatment ☑ with own ETP discharge to: CETP Kerdasa
Discharge description:	Facility doing Treatment to its effluent (industrial + domestic) Then Send it To CETP in Kerdasa
Weather conditions:	on sampling day: 36°C on day before: 36°C

Fill in all above information as applicable.

Sample Type and Details (see also page 2)

☐ Effluent Discharge — ○ direct: Enter sampling times in Sample Details (page 2), and measure field parameters. or ○ indirect: Enter sampling time(s) for indirect discharge. Field parameters are not required, except on client's request. ○ Facility has WWTP ○ Plant is in operating condition. ◇ with Equalisation Tank (EQT) present: Hydraulic Retention Time (HRT): 20 h (= Volume of tank [m³] / Flow rate [m³/h]) 1000/50m3/h. If HRT > 12h, grab sampling from EQT is allowed.

☐ Pre-treated WW without sludge — ☑ Untreated WW — ◇ with Equalisation Tank (EQT) present: HRT: 20 h (= Volume of tank [m³] / Flow rate [m³/h]) If HRT > 12h, grab sampling from EQT is allowed — ☐ Incoming Water — ☐ MMCF

☐ Sludge with below disposal pathway*): age of sludge : days / weeks

○ A >1000 °C offsite incineration — ○ B Landfill with significant control — ○ C Building products processed >1000 °C — ○ D Landfill with limited control — ○ E Incineration / Building products processed <1000 °C — ○ F Landfill with no control — ○ G Land application

*) If supplier cannot provide information, pathway "F" shall be assumed.

Sludge volume generated: 10 ○ m³/h ○ L/sec ○ other unit (specify): Ton/Month per facility info ○ measured ○ estimated

☐ Process Chemical ○ liquid ○ solid (powder/granulate/pieces) ◇ from running process ◇ from warehouse/storage

Times of sampling (if applicable)								
	Untreated:	1	2	3	4	5	6	7
	Effluent (indirect):*)	1	2	3	4	5	6	7
	Incoming:	1	2	3	4	5	6	7
	Sludge (liquid): (for direct discharge, see below)	1	2	3	4	5	6	7

or Grab (HRT>12h): 12:00
or Grab (HRT>12h): 12:00
or Grab (HRT>12h):
Solid sludge: 12:00

Picture ID (or Date & Time / Interval):

GPS coordinates of sampling points:

Incoming W.:	Lat.: ON OS		Long.: OE OW	
Untreated WW:	Lat.: ON OS	30.078677	Long.: OE OW	31.105910
Effluent:	Lat.: ON OS	30.079339	Long.: OE OW	31.105772
Sludge:	Lat.: ON OS	30.078596	Long.: OE OW	31.105521

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Sample Details *) Field parameters usually are only required for direct discharge. If client requests also for indirect discharge, use below fields.

☐ Composite Sample ☐ Grab Sample (only allowed from EQT of Effluent with HRT>12h) (enter data in column for Averaged Readings and in field at right)

Volume of aliquot(s): mL

Time of discrete effluent sample **	1	2	3	4	5	6	7	Averaged Readings or Grab Sample readings:
pH:								
Temp. WW discharge	°C	°C	°C	°C	°C	°C	°C	°C
of receiving water	°C	°C	°C	°C	°C	°C	°C	°C
Flow rate:	L/s	L/s	L/s	L/s	L/s	L/s	L/s	m³/d avg.
Dissolved Oxygen:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Chlorine:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Persistent foam:	O yes O no	O yes O no	O yes O no	O yes O no	O yes O no	O yes O no	O yes O no	

**) time when discrete sample for composite was taken. Use comment field if number of samples is greater than seven, or if above fields are otherwise not sufficient.
Note: 1.0 m³/h = 0.27 L/s ; 1.0 L/s = 86.4 m³/d; 1 m³/h = 0.042 m³/d; multiply the flow rate in m³/h by the daily operation time of the ETP to get flow rate in m³/d;

Sampling procedure: O automated sampling ✓ with beaker/bowl O other:

Wastewater Flow Data (Effluent/Discharge)

System:	❒ Flow meter (in facility)	❒ Pipe (O)	❒ Flume (U)	❒ Wier (V)
Diameter [cm]				
Water Depth [cm]				
Flow Speed [cm/sec]				

General Field Parameters and Sensory Data (enter as far as applicable)

Type	T ambient air [°C]	Odour	Colour	Foaming	Floating matter
Incoming				O yes O no	O yes O no
Untreated	38°C	offensive	Blue	O yes ✓ no	✓ yes O no
Effluent	27°C	No	Clear	O yes ✓ no	O yes ✓ no
Sludge		No	dark yellow brown		

Field Testing QA/QC

Parameter	Lab Control Sample target value	Lab Control Sample measured value	Accuracy [%]
pH			
Total Chlorine			

Other observations:
Sludge pH . 12.7

Additional notes (e.g., alternatively measured flow and readings, abbreviations used, etc):

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ZDHC Wastewater Sampling - Facility Confirmation

The Wastewater samples have been collected under the facility's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

Sampling person (name & email address):

Rania.Sayed@intertek.com

Facility Name:

Giza Spinning and weaving Co.

Sampler's ZDHC accreditation no.:

C74D1068179O2

Facility's Representative name:

Khaled Mahmoud Sayed.

Sampler's Signature:

Rania Sayed

Facility's Representative Signature and Stamp:

Khaled Mahmoud

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Document on sludge disposal or licensed third-party waste contractor for sludge disposal.
Not Provided